Methodological Framework for Assessing the Impact of the L'Aquila Food Security Initiative (AFSI)

Paper prepared[†] for

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1. Introduction

The L'Aquila Food Security Initiative (AFSI) aims to achieve sustainable global food and nutrition security by substantially increasing aid to agriculture and food security over three years through a coordinated, comprehensive strategy focused on sustainable agriculture and rural development. The AFSI group is looking to collectively demonstrate, by means of examples in some partner countries on a voluntary basis, that the provided resources are managed for results and that fulfilment of its financial and non-financial commitments leads to actual results on the ground.

This paper lays out a methodological framework for assessing the degree to which the L'Aquila commitments have been achieved as well as impact of the commitments on food and nutrition security and other results, including sustainable agriculture.

In the next section, we unpack the L'Aquila Joint Statement on Food Security to understand the results sought and the commitments made to achieve the results. This is followed in section 3 by a discussion of indicators and methods as well as a conceptual framework of the potential channels through which the commitments made can affect food and nutrition security and other results. Section 4 illustrates a simple methodology to analyze results at the macro level.

2. AFSI Results and Commitments

It is important to unpack the L'Aquila Joint Statement on Food Security to understand the results sought and the commitments made to achieve the results to set boundaries on the types of information to collect and the broader scope of analysis. These are grouped into results, commitments, dimensions of commitments, and enabling environment, as listed below.[1]

Results

- Increased food and nutrition security
- Reduced poverty and hunger
- Sustainable agriculture (including protection of biodiversity)
- Low and stable food prices
- Increased trade flows

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[1] See http://www.g8italia2009.it/static/G8_Allegato/LAquila_Joint_Statement_on_Global_Food_Security%5b1%5d,0.pdf for the full L'Aquila Joint Statement on Food Security.

Commitments

- Increased amount of financial and technical assistance for investments in agriculture and rural development (ARD), specifically:
    - Agricultural productivity (including pre- and post-harvest technology)
    - Private sector growth
    - Rural employment
    - Skills, knowledge, and training
    - Rural health and education
    - Rural infrastructure (transportation, processing, storage, irrigation)
    - Social protection and safety nets
- Increased quality (urgency, timing, reliability, coordination) of financial and technical assistance
- Assist countries to develop and implement their own food security strategies

Dimensions of Commitments

- Cross-cutting and comprehensive (ARD)
- Inclusiveness (smallholders, women)
- All levels (global, regional, national)
- In Africa, support to CAADP

Enabling Environment /Conditioning Factors/Shocks

The L'Aquila Joint Statement on Food Security rightly recognized that both meeting the commitments and achieving the results depend on several other country-specific and global-level factors, including:

- Country-specific
    - Sound policy environment
    - Political stability and peace
    - Good governance and policy reform
    - Natural resources
- Global
    - Financial and economic crisis
    - Food prices
    - Climate change

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3. Indicators and Methods

3.1 Key Questions to Answer

The pertinent question of how can to demonstrate the contribution of AFSI's commitment to development outcomes in partner countries can be answered by addressing two fundamental sets of questions:

1. What is the nature (as discussed above) and amount of increase in ODA to partner countries for investments in ARD and food security that is due to AFSI?
2. How has the change in ODA due to AFSI affected (i) ARD policy and planning processes, (ii) the nature and amount of public spending in ARD, and (iii) balance of payment, exchange rates and prices?

These are at the heart of the impact pathways and their findings could be used to tell a compelling story of AFSI's influence, within the framework presented above. The findings can be used by the AFSI group and its partner countries to state the impact of their collective commitment on achievements on growth, poverty reduction, food and nutrition security, and other development outcomes.

3.2 Indicators to Monitor and Evaluate

3.2.1 Macro Level Indicators

The relevant indicators that are proposed to be monitored and evaluated to help address these questions are grouped into five areas—AFSI commitments and disbursements, ARD policy and planning processes, government spending, intermediate results, and results. The indicators at the highest level of aggregation are presented in Table 1. They are based on the CAADP M&E core set of indicators, from which details can be found on the ReSAKSS website.[2] In terms of the MfDR analytical methodology, indicators in areas 1 – 3 describe inputs while indicators in areas 5-7 represent outcomes. The approach to reporting at this level of aggregation focuses on two main tasks: (i) measurement of the individual indicators across the five areas and (ii) relating outcomes (areas 5-7) to intermediate results (area 4) and inputs (areas 1 – 3).

   a) *Measurement of Macro-level Indicators*

The measurement of the individual indicators at the aggregate level is technically straightforward but raises two challenges in terms of country coverage and time coverage. The latter relates to obtaining data on most indicators beyond 2009. Efforts to have newer data, say up to 2011, within a timeframe of a few months would have to involve different actors (AFSI members and partners, government sources, existing data platforms) and would have to be concentrated on a few countries. Table 2 gives an idea of what data is available at this time and what additional data is needed in order to successfully measure all the macro indicators. Depending on what can be gathered in terms of data, one can decide to report

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[2] CAADP M&E framework (Benin et al. 2010) ReSAKSS annual trends and outlook report (Benin et al. 2011).

on incremental subsets of indicators over a timeframe to be agreed upon by AFSI members and IFPRI. The idea here is one of progressive reporting, starting with a minimum set of agreed indicators and aligning the timeline of full reporting with that of data availability and collection efforts.

Having data beyond 2009 is important as it allows to better track the emerging impact of AFSI. New data would also ensure that the report adds value to recent reports on aid effectiveness (see footnotes 2 and 3), which have covered the time up to 2009 at best, at which point donor engagement, financially and non-financially, is believed to have accelerated following AFSI. The Deauville Accountability Report, for example, states that "*around half of the pledges are formally in the process of being disbursed or have already been disbursed for specific purposes, since the L'Aquila Summit. Twenty-two percent of this amount was already disbursed, while an additional 26% is firmly on track to be disbursed*" (G8 2011, pp. 41). This is based on self-reporting by AFSI members[3] and likely represents progress more at the global level, because there is a lag between commitments, disbursements, and actual expenditures in partner countries.

b) *Relating Input to Outcome Indicators: Impact pathways from commitments to results*

Measuring the impact of ODA on country level development objectives is more complex than quantifying individual indicators. The impact pathways are therefore discussed briefly in order to highlight the choices, methodological as well as in terms of resources and timing that have to be considered (see Figure 1). The input indicators in areas 1 – 3 deal with financial and non-financial assistance. The literature on aid effectiveness suggests that the main impact pathway of financial assistance is that it leads public spending.[4] With public spending being one of the most direct and effective methods among the range of instruments that governments can use to promote growth, poverty reduction, and other development outcomes, its effect on the economy is enhanced (or mitigated) due to the balance-of-payments effects of aid. Aid used to finance development projects are—in principle and often in practice investments, whose accumulation causes growth, which in turn affects other development outcomes. Aid that supports directly consumption and nutrition outcomes of targeted socio-economic groups, such as emergency and food aid, can also contribute to the overall growth and poverty-reduction goals by building human capital and creating assets to raise productivity levels among the target groups. These relationships are not straightforward though, as recipients may alter their production decisions (e.g. labor supply), or consumption and savings decisions which may negatively impact productivity (van de Walle 2003). Evidence tends to indicate that such aid, typically, rarely creates any productive capital and so the link with productivity is often weak (Devarajan et al. 1996).

Furthermore, government or public spending financed through aid (grants) may tend to appreciate the real foreign exchange rate and in turn reduce the competitiveness of the tradable sectors and economic growth—Dutch disease. In general, the effect of aid on the dynamics of prices and exchange rates is an important pathway of aid on the real economy of the recipient country. A related issue is

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[3] This includes Australia, Canada, EU Institutions, France, Germany, Italy, Japan, Netherlands, Russia, Spain, Sweden, United Kingdom, and United States—see Deauville Accountability Report (G8 2011, pp. 43).
[4] See for example Doucouliagos and Paldam (2008 and 2009) for a review of the literature and effect of aid.

possible crowding-out of public spending by aid or loans that have to be paid back. Moreover, aid or loans can create inter-temporal imbalance in public spending and growth to the extent that policy makers are myopic—i.e. only consider the size of ODA with disregard to repayments (and potential negative effects) that are passed on to future generations. More detailed discussion of the pathways from public spending to growth, poverty reduction, food security, and other development objectives can be found in the CAADP M&E framework and other supporting documents (Benin et al. 2008 and 2010). The fact that these pathways are not unidirectional and can go both ways emphasizes the importance of non-financial aspects of the AFSI processes and their contribution to improving policy and aid planning and implementation.

Figure 1: Impact pathways of aid effectiveness
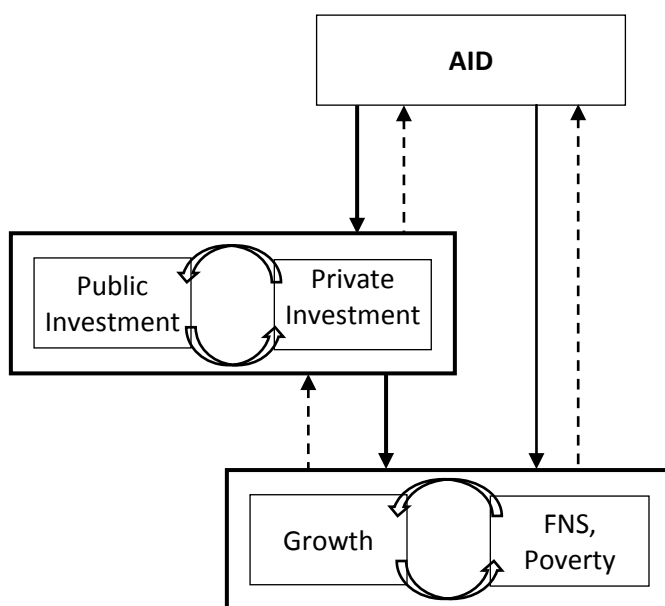
Source: Adapted from Doucouliagos and Paldam. Notes: FNS is food and nutrition security.

3.2.2 Indicators at Disaggregated Level

The macro level indicators listed in Tables 1 and 2 require less effort to collect and thus could be the focus of the first stage of the analysis. They focus on country level inputs and outcomes. The findings to be reported at that level would give a general picture of the direction of results being achieved and allow for some comparison between countries. It would be technically difficult to examine in reasonable detail the nature of the relationships between inputs and outcomes. Nor would it be possible to draw meaningful lessons however due to the aggregate nature of the analysis with respect to specific areas of concerns related to policy, target groups, or aspects related to gender and social exclusion. Table 3 provides an idea of what additional indicators could be considered in order to better measure the impact of inputs at the subnational level and across different socio-economic groups.

Additional tools would have to be developed to collect the necessary data and carry out the required analysis. These would include structured primary surveys to supplement the collection of national level secondary data in order to quantify the disaggregated indicators. The analysis would also call for the refinement and customization of existing tools such as economy-wide or agricultural sector models to estimate the impact relationships between inputs and outcome indicators of interest at the disaggregated level. It is at this level also that the process-related outcomes can be best studied. These include the quality and depth of policy dialogue, participation and inclusion, as well as the strength and effectiveness of policy coordination and alignment.

Quantification of indication and analysis of outcomes at the disaggregated level is an in-depth exercise, and thus time and resource intensive. It is best carried out in a limited number of case study countries. The selection of countries would have to be guided by the level of resources that are already available on the ground in terms of data and collaborative platforms, in addition to involvement in the AFSI process. Once agreement has been reached in terms of the level of disaggregation that is desired and country case studied to consider, appropriate data gathering and analysis tools will be developed and presented to review.

For the macro level indicators described in Tables 1 and 2, the next section introduces an analytical framework that can be used to quantify the financial input and outcome indicators and measure related results. The non-financial inputs address the extent to which AFSI has affected ARD policy and planning processes[5]. They are best treated at the disaggregated level and as part of the narratives on the participation and role of donors in major policy and planning processes such as the CAADP roundtable process, joint agricultural sector reviews, etc. This includes description of donor coordination and harmonization mechanisms on outcomes, including joint (with government) actions implemented. All these are country level disaggregated inputs and outcomes. They are therefore not covered in the illustration below, which, as indicated, focuses on the macro level.

4. Analysis of Data and Presentation of Findings at Macro Level

As we saw in the section on the impact pathways, there are many factors, often acting in complex and sometimes contradictory ways, which influence the relationship between financial aid and development results. These call for sophisticated methods and extensive time-series data to address several issues in program evaluation, primarily endogeneity of investment decisions and the fact that the benefits of investments materialize with a long lag.[6] In the subsequent paragraphs, we propose steps to assess: (i) the nature and amount of incremental financial aid linked to AFSI; (ii) the effect of AFSI financial inputs on public spending and intermediate results; and (iii) finally the effect of AFSI financial inputs on food security and other results

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[5] Answering the second set of questions rests on having found a significant change (positive or negative) in both financial and non-financial ODA due to AFSI. The level of minimum level of change to accept as being significant should be decided by the AFSI group a priori.

[6] See Imbens and Wooldridge (2009) for review of issues and methods in program evaluation.

Nature and amount of incremental ODA due to AFSI

The first set of question on the nature and amount of incremental financial and non-financial commitments of AFSI will be addressed using situation, descriptive and trend analyses, including both historical (based on observations prior to 2009) and forward-looking (based on observations in 2009-11) perspectives of changes in factors mitigating or improving donors' ability to make good on their commitments. Analysis of the factors contributing to the changes will be based on the narratives on, for example, the alignment (including lead and lag times) between headquarter donor policies and strategies and in-country donor planning and implementation procedures.

An example of the analysis of the incremental amount is shown in Figure 2, where observations up to 2009 (actual base or ODA without AFSI) is projected forwards (based on estimated annual average the growth rate) to provide an ODA without AFSI business-as-usual scenario against which to compare the ODA with AFSI (actual and projection). The incremental value of AFSI can then be estimated as the difference between the two lines, and the amount can be given as a total value or an annual average amount over the relevant years. These amounts can also be expressed in percent and percentage change terms (over the base amounts)—call this ΔODA_{AFSI}, read as percentage change (Δ) in ODA due to AFSI.

In the example in Figure 2, the incremental value will be positive. But it is possible for this to be zero or negative, which can happen if disbursements were a mere reallocation or relabeling of existing and already planned ODA. A zero or insignificant incremental value could also reflect the lag between commitments, disbursements, and actual expenditures in partner countries, meaning it is too early to assess the impact of AFSI. It is important to carry out the analysis in real value terms (i.e. constant prices) in order to remove the influence of inflation and other inter-temporal factors. This analysis can be extended to look at specific components of ARD to the extent that the quantifiable (both financial and nonfinancial) data allows.

The main underlying assumption here is that the predictors of ODA (i.e. the number of factors, their relationship with ODA, and change in their values over time) remain the same as in base period. Because we do not estimate these relationships, we cannot judge the direction of bias associated with violation of this assumption, which cannot also be tested. However, greater confidence in the estimates can be generated by using a lower and higher annual average growth rates than the estimated rates in doing the projections. This will give a lower- and upper-bound estimate of the incremental value of AFSI, where: the lower-bound estimate will be associated with using a higher annual average growth rate for the 'without ASI business-as-usual scenario' and a lower annual average growth rate for the 'with AFSI projection'; and the upper-bound estimate will be associated with using a lower annual average growth rate for the 'without ASI business-as-usual scenario' and a higher annual average growth rate for the 'with AFSI projection'.

Figure 2: Simulated example of analysis showing ODA for ARD, with and without AFSI
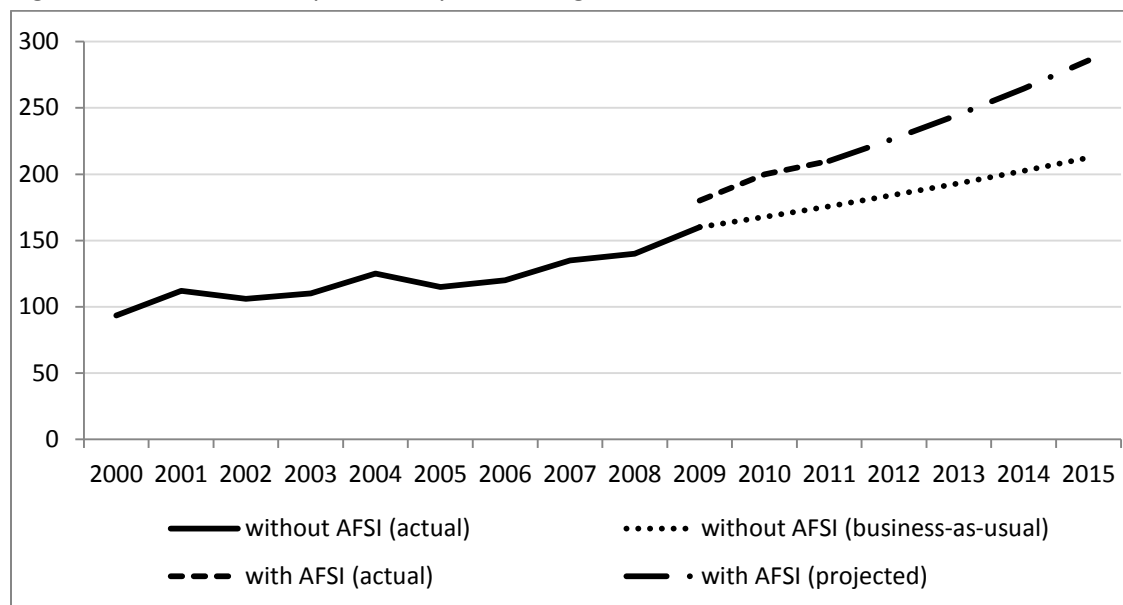
Source: Authors' simulation based fictional numbers.

Effect of AFSI on public spending and intermediate results

Because we cannot estimate any cause-effect relationships due to data and time constraints, start with some priors based on existing estimates of the key underlying relationships discussed in the section on impact pathways of aid—using α for the "aid-public spending effect"[7] and β for the "public spending-results effect"[8]. The focus in this section is to make a judgment on: first, whether the "aid-public spending effect" observed in the base period without AFSI (call it α_{noAFSI}) is maintained in the period with AFSI; then, adjust α accordingly (call it α_{AFSI}).

Basically, the implied question is whether AFSI (i.e. incremental ODA due to AFSI) crowds in (i.e. $\alpha_{noAFSI} < \alpha_{AFSI}$) or crowds out ($\alpha_{noAFSI} > \alpha_{AFSI}$) public spending or whether it has a neutral effect on public spending ($\alpha_{noAFSI} = \alpha_{AFSI}$).

Because the focus is on relative sizes of α_{noAFSI} and α_{AFSI}, rather than their individual magnitudes, we estimate the ratio (δ):

$$\delta \equiv \alpha_{AFSI} / \alpha_{noAFSI} = \Delta PS_{AFSI} / \Delta ODA_{AFSI}$$

where ΔPS_{AFSI} is the percentage change in public spending (PS) due to AFSI, which can be estimated as done for ΔODA_{AFSI} above (see also Figure 2). A ratio of one implies that AFSI has a neutral effect on public spending, while a ratio greater than one or less than one implies that AFSI crowds in or crowds out public spending, respectively.

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[7] See papers by Doucouliagos and Paldam (2008 and 2009) for example.
[8] See papers by Fan et al. (in Fan 2008) on public spending effect on poverty reduction in Uganda and Tanzania.

The same method can be applied to assess the effect of AFSI on the intermediate results (inflation, foreign exchange, balance of payments), which can be used to support the estimated public spending effect and, particularly, the analysis to be done in the next section as well as the overall findings. Similarly, the narratives on the quality (timing, etc.) of ODA will be useful.

Here, the main underlying assumption is that the effect of other factors on the "aid-public spending effect" remains the same as in base period. Again, because we do not estimate of the other factors, we cannot judge the direction of bias associated with violation of this assumption, which cannot also be tested. While the confidence interval approach discussed earlier is carried over here, statistical significance of the difference in the correlation coefficients between ODA and public spending for the period without AFSI and the period with AFSI can be used to infer the statistical significance of the estimated ratios. Zero statistical significance of the difference in the correlation coefficients for the two periods support the neutral effect, while a significant difference supports either crowding in or crowding out effect. The same procedure can be used to infer the statistical significance of the effect of AFSI on the intermediate results.

Effect of AFSI on food security and other results

Using the estimates from the preceding sections, the **collective incremental effect of the AFSI group and its partners on the results (ΔR)** can be estimated by:

$$\Delta R = \Delta ODA_{AFSI} * \delta * \beta$$

where β is the known effect of public spending on the results (growth, food and nutrition security, poverty reduction, and other development objectives)—see Table 2 for examples of estimated effects in selected African countries.

Table 1: Returns to public expenditure in selected African countries

Expenditure on:	Ethiopia	Ghana	Tanzania	Uganda
Monetary units of outcome[c] per one monetary unit of expenditure				
Agriculture [a]	0.1	3.5	12.5	12.4
Education	0.6	n.e.	9.0	2.7
Health	-0.03	n.e.	n.e.	0.9
Roads [b]	4.2	n.e.	9.1	7.2
Number of people lifted out of poverty per million local currency units[d] of expenditure				
Agriculture [a]	n.e.	n.e.	40.4	58.4
Education	n.e.	n.e.	43.1	12.8
Health	n.e.	n.e.	n.e.	4.6
Roads [b]	n.e.	n.e.	26.5	33.8

Sources: Ethiopia (Mogues 2012); Ghana (Benin et al. 2012); Tanzania and Uganda (Fan and Rao 2008).

Notes: [a] refers to agricultural R&D expenditure except in Ghana and Ethiopia where it is total agricultural expenditure; [b] refers to rural or feeder roads; [c] 'outcome' is agricultural GDP in Ghana, Uganda, rural consumption in Ethiopia, and income in Tanzania; [d] the amount of local currency units refers to: per 1 million Tanzanian shillings in Tanzania and per 1 million Ugandan shillings in Uganda; n.e. means not estimated.

As before, the main underlying assumption, in addition to the previous ones, is that the effect of other factors on the "public spending-results effect" remains the same as in base period. The confidence intervals and statistical significance associated with the correlation coefficients can be applied.

Some Issues related to measurement and definition of AFSI financial inputs

A few issues come up with the country case studies in order to make comparisons across countries (See the Deauville Accountability Report (G8 2011) for further discussion). The **first issue is what to count or not to count as due to AFSI**. In the Deauville Accountability Report for example, the pledges and disbursements by the AFSI countries included many different funding instruments or windows such as the Coalition for African Rice Development (CARD), the Global Agriculture and Food Security Programme (GAFSP), the CAADP Multi-Donor Trust Fund (MDTF). And in the case of the United States for example, commitments to its Feed the Future (FtF) strategy, which nutrition is an integral part, and resources for both emergency and non-emergency food aid, including those in DAC category of development food aid, were not counted as part of their L'Aquila Pledge. This is an issue for the AFSI group to decide so that the data can be collected and categorized accordingly.

The **second issue is the $20 billion target over three years (2009-12)**. Whether this is incremental, i.e. over previous disbursements, or the total amount is not clear? The example of the United Stated above seems to imply additional resources, at least from the United States' perspective. How does this translate into country targets? Also, does this target include commitments by the AFSI group only (i.e. G8 plus five others—see footnote 7) or should it include partner countries' own commitments and spending?[9] Again, this is an issue for the AFSI group to decide and provide guidance on.

The **third issue has to do with baselines and period over which the assessment is being made**. Basically, the AFSI pledging countries have different pledge periods (i.e. one, two or three years) and they use different reporting years (i.e. calendar vs. fiscal, which are also different). To match the other indicators to be used in the analysis, this issue can be addressed by converting the data into calendar years by apportioning the fiscal year amount into the respective calendar years based on some share of the total amount. The share can be equal and determined by the number of months that falls in the calendar year or on some other weight based on when the disbursement for the fiscal is made, giving more weight to the respective calendar year. This should not be a big issue to the extent that whatever is decided on can be consistently applied across donors and countries so that the underlying trends in commitments and disbursements to the countries are maintained.

The **issue of scope and components of the pledges and disbursements is also important**, because these vary among donors. This issue was discussed earlier. For the analysis, this means using more aggregated data (i.e. by including several of CRS purpose codes into a single indicator) rather than using more disaggregated data (i.e. by creating and analyzing separately several sub indicators). The implications of

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[9] According to the L'Aquila Joint Statement on Food Security "… In this respect, we welcome the commitments made by countries represented at L'Aquila towards a goal of mobilizing $20 billion over three years … We encourage other countries and private actors to join in the common effort towards global food security through a coherent approach" (G8 2009).

this is that the findings from the analysis using the more aggregated data or indicator is less suitable for making inferences on investment priorities.

Table 2: Macro Level Indicators

Process, Policy or Intervention	Quantitative Indicator/Definition	Macro Information	Sources of Data
AFSI commitments and disbursements			
1. Donor commitments and disbursements	1a. ODA disbursements: (1) total amount; (2) share of total commitments 1b. Share of ODA disbursements for ARD	Narratives on: (1) alignment between in-country implementation and HQ polices; (2) impact of major donor development projects (i.e. off budget support)	Donor offices, OECD statistics
ARD policy and planning process			
2. CAADP county roundtable process	2a. (1) Stage in CAADP country roundtable process	Narratives on role of donor group, coordination, and joint (with government) actions implemented	CAADP Country Team; Donor offices, ReSAKSS monitoring
Government spending			
3. Government budget sources and spending on ARD	3a. Total government budget and expenditures, and: (1) as share of GDP; (2) by source—grants vs. loans, bilateral vs. multilateral, etc. 3b. Expenditures on the agricultural sector as percent of: (1) total government spending; (2) AgGDP	Narrative on timing of ODA (grants, loans) reporting requirements Narratives on: (1) coordination of government agencies in ARD; (2) private sector investments in ARD (excluding ODA above)	Government offices—Ministries of Finance, Agriculture, Rural Dev't, etc.; CAADP Country Team
Intermediate results			
4. Economic governance	4a. Macroeconomic management: (1) deficit to GDP; (2) revenue to GDP; (3) debt to GDP; (4) exchange rate; (5) inflation rate; (6) balance of payments; (7) real exchange rate		Government offices—statistical bureaus, national accounts, ReSAKSS Aggregates
Results			
5. Agricultural performance	5a. Real AgGDP growth rate (percent) 5b. Value of total agricultural exports by: (1) as percent of AgGDP; (2) ratio to value of total agricultural imports;		Government offices—statistical bureaus, national accounts, World Bank, OECD, IMF
6. Poverty	6. Poverty rate (P0), gap (P1) and squared gap (P2)		Government offices—statistical bureaus, national accounts Global Hunger Index
7. Hunger and food and nutrition security	7. Proportion of population below minimum dietary energy consumption		

Source: CAADP M&E Minimum Core Set of Indicators (ReSAKSS).

Notes: See Benin et al. (2010) for more on data requirements and sources, methods, and other related details.

Table 2: Data Needs for Macro Level Indicators

Process, Policy or Intervention	Quantitative Indicator/Definition	Data Available	Data Needed/Gap
AFSI commitments and disbursements			
1. Donor commitments and disbursements	1a. ODA disbursements: (1) total amount; (2) share of total commitments 1b. Share of ODA disbursements for ARD	ODA commitments 2002-2009 ODA Disbursements 2002-2009	2010-2012 disbursement and commitments
ARD policy and planning process			
2. CAADP country roundtable process	2. (1) Stage in CAADP country roundtable process;	2003-Present	
Government spending			
3. Government budget sources and spending on ARD	3a. Total government budget and expenditures, and: (1) as share of GDP; (2) by source—grants vs. loans, bilateral vs. multilateral, etc. 3b. Expenditures on the agricultural sector as percent of: (1) total government spending; (2) AgGDP	GDP/Budget Commitments 1980-2009 Agricultural Expenditures 2002-2009	2010-2012 2010-2012
Intermediate results			
4. Economic governance	4a. Macroeconomic management: (1) deficit to GDP; (2) revenue to GDP; (3) debt to GDP; (4) exchange rate; (5) inflation rate; (6) Balance of Payments; (7) Real Exchange Rate	1980-2010	2011-2012
Results			
5. Agricultural performance	5a. Real AgGDP growth rate (percent)	1960-2009	2010-2012
	5b. Value of total agricultural exports: (1) as percent of AgGDP; (2) ratio of total agricultural imports;	1961-2009	2010-2012
6. Poverty	6. Poverty rate (P0), gap (P1) and squared gap (P2)	Various years up to 2007/8	2009-2012
7. Hunger and food and nutrition security	7. Proportion of population below minimum dietary energy consumption		2009-2012

Table 3: Disaggregated Indicators

Process, Policy or Intervention	Quantitative Indicator/Definition	Qualitative Information	Sources of Data	Comments
AFSI commitments and disbursements				
1. Donor commitments and disbursements	ODA disbursements for ARD by: (1) financial and non-financial; (2) on and off government budget support; (3) types—agriculture and rural health, education, infrastructure, safety nets; (4) as share of AgGDP	Narratives on: (1) alignment between in-country implementation and HQ polices; (2) impact of major donor development projects (i.e. off budget support)	Donor offices	
ARD policy and planning process				
2. CAADP county roundtable process	2a. CAADP county roundtable processes by: (1) composition of participants (e.g., institution, gender, expertise); (2) quality of participation; (3) dialogue and reviews	Narrative on Country coordination and implementation process	CAADP Country Team; Donor offices	
Government spending				
3. Government budget sources and spending on ARD	3a. Expenditures on the agricultural sub-sectors as percent of: (1) total government spending on agriculture; (2) AgGDP 3b. Expenditures on agricultural R&D, farm support, irrigation, natural resource management, marketing infrastructure, etc. and expressed as a percent of AgGDP	Narratives on: (1) coordination of government agencies in ARD; (2) private sector investments in ARD (excluding ODA above)	Government offices—Ministries of Finance, Agriculture, Rural Dev't, etc.; CAADP Country Team	
Intermediate results				
4. Economic governance	4. Domestic and export-import parity prices by major commodities		Government offices—statistical bureaus, national accounts	
Results				
5. Agricultural performance	5a. Value of total agricultural exports by percent contribution of subsectors and major commodities 5b. Real agricultural growth by subsectors and major commodities		Government offices—statistical bureaus, national accounts	
6. Poverty,	6a. Poverty rate (P0), gap (P1) and squared gap (P2) by rural/urban, gender, and other geographic and socio-economic groups		Government offices—statistical bureaus, national accounts	
7. Hunger and food and nutrition security	7a. Proportion of population below minimum dietary energy consumption (H1) by: (1) gender; (2)		Government offices—statistical bureaus,	

	rural/urban; (3) age; and other geographic and socio-economic groups		national accounts	
	7b. Nutrition diversity by: (1) gender; (2) rural/urban; (3) age; and other geographic and socio-economic groups			

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